



Electrical Service Inspection Checklist

*This list comprises some of the most common electrical code violations when installing an electrical service. It **does not** address every possible violation, **nor** is it intended as an instruction manual.*

Common Residential Service Requirements					
Service Size (Amps)	Conduit Size (Rigid Steel or IMC)	Wire Size		Grounding Electrode & Water Bond Size (Copper)	Maximum Riser Height above Roof <i>without</i> bracing
		Copper	Aluminum		
100	1¼"	#4	#2	#6	42"
125	1½"	#2	#1/0	#6	42"
200	2"	#2/0	#4/0	#4	54"
400	3"	400 kcmil	600 kcmil	#1/0	78"

Service Riser

- ☐ If service riser is used as attachment point for service drop conductors a minimum 1-1/4" steel RMC or IMC or 2" aluminum mast is required by PG&E.

Service drop Clearances

- ☐ Overhead clearances *NEC 230-24
 - 18" minimum above roof overhang
 - 8' above roofs less than 4:12 slope
 - 3' above roofs not less than 4:12 slope
 - 10' above walkways
 - 12' above residential driveways
 - 18' above roadways and parking lots
- ☐ Service conductors must have a minimum 3' clearance from windows, doors, porches etc. (except conductors run above the top level of a window. *NEC 230-9)

Location, Heights, Clearances

- ☐ Location and meter height approved by PGE (normally center of meter must be between 48

Grounding

- ☐ Grounding electrode installed per *NEC 250-64, sized per *NEC 250-66; usually #6 copper up to 150 amps and #4 copper for 200 amp.
- ☐ Metal grounding electrode conductor raceway bonded at both ends *NEC 250-92. Note: Flex is not allowed.
- ☐ Metallic cold water service piping serving as part of a grounding electrode system shall be bonded within 5' of entering building. Nonmetallic cold water service with a metallic building piping system shall be bonded at any accessible point on the system. *NEC 250-104
- ☐ Water bond shall be accessible *NEC 250-104 (a)
- ☐ Grounding electrode *NEC 250-50
 - Ground rod ½" X 8' minimum *NEC 250-52 (c)

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inches and 66 inches).

- ☐ Working clearance in front of service must be 30 inches wide by 36 inches deep minimum. *NEC 110-26 (a)
- ☐ Minimum headroom 6-1/2' *NEC 110-26 (e) except existing dwelling units with services less than 200 amps.
- ☐ Maximum circuit breaker height 6'-7" *NEC 380-8\

Neutral Bonding

- ☐ Neutral must be bonded at the main panel. *NEC 250-26
- ☐ Sub-panel neutral shall not be bonded. *NEC 384-24(s)

Circuit Breakers

- ☐ Back-fed circuit breakers must be fastened in place. *NEC 384-16 (g)
- ☐ Circuit breaker type must be approved types for panel.
- ☐ All circuit breaker branch locations must be labeled.